

KANDILLI OBSERVATORY, ISTANBUL

(Report from Solar Institute)

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1. General

The Kandilli Observatory was founded in 1911. It is located on the Bosphorus, some 10 km north-east of Istanbul at an altitude of 120 m above sea level. The Heliophysics Service is one of the departments of the Observatory.

The geographical coordinates of the main dome are: Latitude $41^{\circ} 03'$, Longitude $1^{\text{h}} 56^{\text{m}} 14^{\text{s}}.8$.

The visual photospheric observations started in the year 1947. The $\text{H}\alpha$ filter was installed in December 1964 and it has been operated regularly since the beginning of the year 1965.

The staff in 1967 consisted of the scientists M. Dizer and E. Soytürk, two technical assistants, and one observer.



Fig. 1. Kandilli Observatory, Heliophysics Services.

2. Equipment, Instruments

Refractor 200/3070 mm, for visual observation of the photosphere, the solar image diameter being 25 cm.

Refractor 150/2250 mm, combined with $H\alpha$ filter built by B. Halle, pass-band 0.5 Å. For photography we make use of a reflex camera 'Zeiss' for 35-mm film. Visual observation of the sun is made with the camera itself by a special eyepiece, so that photographs can be taken at any moment, while observing the sun. The solar patrol in $H\alpha$ and integrated light observations are continued as before.

Refractor 110/1650 mm, K-filter, pass-band $0.3 \text{ Å} \pm 1 \text{ Å}$ shift, solar images of 20 and 50 mm. The K-filter will be operated after the beginning of 1968.

Refractor 125/2000 mm, white light camera.

Double-beam recording Microdensitometer Mrk III CS, Joyce, LoebI.

In the recent year, some work was done in the Heliophysics Service:

(1) The eclipse of May 20, 1966, has been observed in Ayvalık in order to determine limb-darkening through an interference filter.

(2) The morphological variation of some flares was investigated during their life with the micro-isodensitometer (Dizer).

(3) Isophote of the artificial satellite for experimental verification of astronomical observation (Soytürk).

(4) Morphological change on the isophote of the active region associated with the proton flare (Dizer).

3. Program for Coming Years

(1) A radio telescope is prepared for recording radiations on wavelength 3 cm (10 Mc/s).

(2) A solar tower telescope, 600-mm vertical coelostat with photoelectric guiding, is under study.